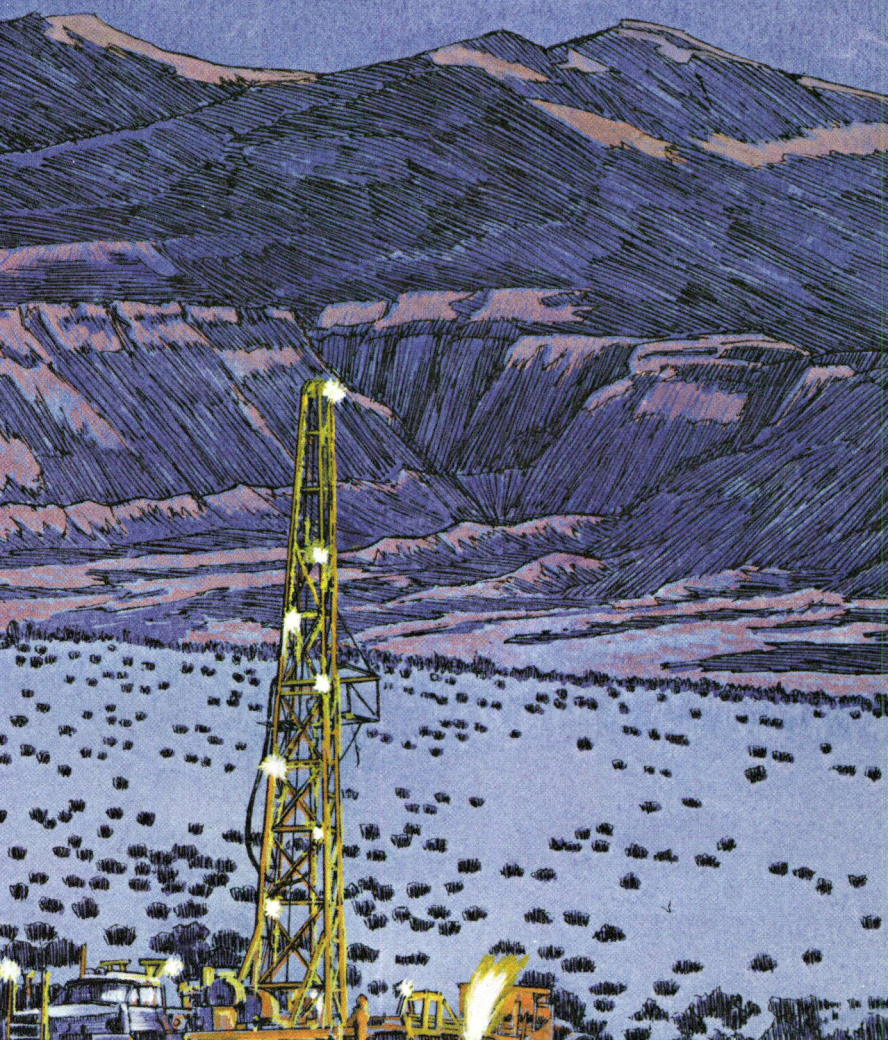


ANNUAL REPORT

Year Ending June 30, 19

25th
Anniversary Edition



In the Beginning

The Company began 25 years ago in the shadow of Mount Taylor, the 11,389-foot remnant of a volcano field which sprang to life in north-west New Mexico some five million years ago. Shown on the Annual Report cover in silk screen by Artist Mary Garriott, the mountain is the dominant feature in that strip of the state from Albuquerque to Gallup where the nation's richest uranium deposits were to be found in a period of nearly three decades beginning in the early 1950s.

Excited by the earlier discoveries in the area, several ranchers in this arid strip of grazing land decided in 1954 to pool their acreage, form a company, and share in the developing boom. "The idea of forming a company just sort of evolved," says Rex McPhaul, whose family contributed several thousand acres to the Company's original holdings. "We all had uranium fever, carrying Geiger counters around, hoping to make the big strike.

"Adrian Berryhill, B. C. Ringer, Jay McPhaul, Jeff Tietjen, and Karl Kothman, all area ranchers, were the driving force behind the organization. A big problem was that no one had any spare cash — lots of land, but no money. So the strategy was to form a company based on land interests and use stock to pay for services — exploration, legal, etc."

That concept was sufficient to get the Company up and running, with a charter of incorporation being issued by the State of New Mexico on July 7, 1954. Eleven original organizers received 162,500 shares of common stock (soon split 10 for 1) in return for their mining claims, leases, and permits.



Early Day Ranchers

The early years of the Company were tumultuous. "The original ranchers were strong-willed people," says McPhaul. "You had to be strong to survive on a New Mexico ranch in those days. They were real individualists, used to running their own show. It made for some exciting board meetings." Maxie Anderson, now the Company's president who joined the board of directors as a 23-year-old in 1957, recalls that meetings often began with instructions to members to "please check your guns in the outer office." (Maxie's father, Carl, had acquired a part of the Anderson family's substantial interest in the Company in 1956 with a typically western transaction — a swap in which he traded \$1 million in heavy equipment for stock in Ranchers and another uranium company.)

There was an equal amount of excitement outside the board room. Claim-jumping was a regular occurrence. Gus Rainey, once sentenced to hang, but later pardoned, helped guard the Company's claims. "Chained one chap to a tree all night for taking a shot at him," Maxie Anderson remembers. Another fellow, in a suit later dismissed, sued the Company and Rainey for \$500,000 for "mental discomfort and humiliation" when Rainey "struck him with a rifle, handcuffed him and repeatedly threatened to kill him," according to a newspaper account at the time.

Without money for operations, the Company leased out its properties, retaining only royalty interests. The first discoveries were made in early 1956 by Phillips Petroleum on Sections 28 and 34 (the Ann Lee and Sandstone mines) and by Anderson Development on Section 30, where ore was intersected in 10 of the first 11 holes after an earlier lessor had bottomed a hole 25 feet short of the ore body.

Royalties began to trickle in in 1958, and only a year later the Company boasted of proven and possible uranium reserves on 10 sections of land. By 1961, royalties exceeded \$1 million for the first time. The Company then decided to become an operating mining company, and in 1964 the first property was acquired — the Bluebird Copper Mine. A series of copper operations followed, several employing novel mining methods. In 1968 the Company returned to the shadows of Mount Taylor and in an intensive exploration effort (cover) drilled out the Johnny M deposit, which is today the backbone of the Company's uranium operations.

(See back cover for a complete chronicle of the Company's first 25 years.)

Ranchers Exploration and Development Corporation

Financial Highlights

<i>For the year ending June 30</i>	<i>1979</i>	<i>1978</i>	<i>1977</i>	<i>1976</i>	<i>1975</i>
Gross income	\$39,497,054	\$34,444,496	\$21,160,930	\$16,177,561	\$18,334,568
Income before income taxes	6,028,842	5,666,986	2,290,719	1,675,673	3,515,485
Income taxes	<u>1,700,000</u>	<u>1,750,000</u>	<u>800,000</u>	<u>698,431</u>	<u>1,126,237</u>
Net income	4,328,842	3,916,986	1,490,719	977,242	2,389,248
Earnings per share					
Primary	3.01	2.72	1.03	.69	1.64
Fully diluted	2.91	2.62	1.01	.69	1.59
Dividends per share	.20	—	—	—	—
Capital expenditures	497,462	9,208,138	1,439,857	3,267,402	949,131
Depreciation, depletion and amortization	4,706,887	5,064,812	1,261,947	1,225,504	1,299,468
<i>At year end</i>					
Working capital	13,485,606	4,865,063	4,572,787	4,285,595	6,837,551
Total assets	40,031,396	37,775,493	32,305,531	27,540,905	24,711,408
Long-term debt	1,817,876	3,472,740	2,548,936	2,878,462	1,899,352
Shareholders' equity	28,224,111	24,522,404	20,515,951	18,972,532	17,995,290
Book value per share	20.04	17.13	14.42	13.38	12.69
Number of employees	350	400	375	300	240

Ranchers Exploration and Development Corporation is a uranium and copper mining company whose shares are traded on the American Stock Exchange. In the fiscal year ending June 30, 1979, virtually all of the Company's earnings came from uranium sales and royalties. The Company's copper operations were only nominally profitable during the year. The Company also owns tungsten, silver, and gold properties which are not in production and conducts extensive exploration for uranium. The headquarters of the Company are at 1776 Montano Road NW, Post Office Box 6217, Albuquerque, New Mexico 87197.

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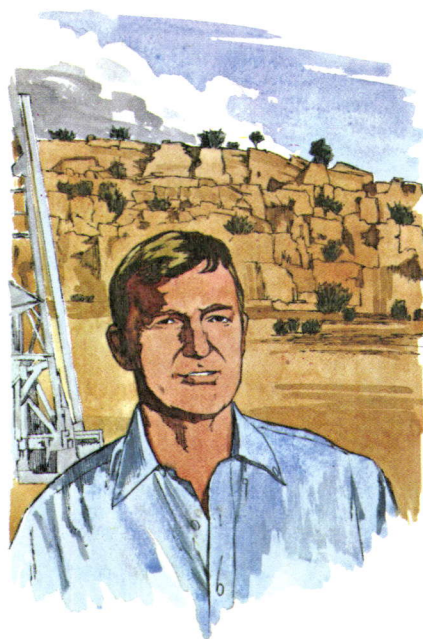
President's Report

Record Earnings.
Financial Strength
Highlight 25th Year

The year ending June 30, 1979 was a very good one and, in some respects, the best in the Company's 25-year history. When we look back 25 years hence, at the time of the Company's 50th anniversary, I believe three things about 1979 will stand out:

(1) The earnings of \$3.01 per share, which exceeded the three dollar milestone for the first time; (2) successful settlement of the litigation over Johnny M Mine uranium sales, which had clouded the Company's future for nearly five years, and (3) the Company's greatly strengthened financial condition, which permits it to consider major projects in production of precious metals and geothermal steam.

As always, the year had its disappointments, none more irritating than the inability of state and federal agencies to approve the second phase of our uranium mill tailings treatment project at Durango, Colorado. In the first phase of the project at Naturita, Colorado, we quickly and safely removed 630,000 tons of tailings to a remote site and, in a period of 17



months, recovered 380,443 pounds of uranium oxide and 1,835,280 pounds of vanadium, thus adding to the nation's energy and mineral supplies. But approval was not given for the next phase, with the result that the Company took a pre-tax write off of \$830,000 on engineering and site evaluation costs incurred at Durango. Perhaps more importantly, the City of Durango continues to have within its limits 1.46 million tons of radioactive tailings which must ultimately be purchased from the Company by the government and moved at taxpayers' expense.

The uranium and vanadium sales from the initial stage of the project were, nevertheless, a key factor in raising the Company's income and earnings to record levels. Total revenues were \$39,497,054, an increase of 15 percent over 1978, while the earnings of \$3.01 per share (undiluted) represented an increase of 11 percent over the \$2.72 per share realized a year ago.

The Company derived most of its earnings for the year from uranium sales (68%) and uranium royalties

(20%). Interest income began to have an impact on earnings for the first time while copper operations showed only a nominal profit for the year. However, improved copper prices prompted a decision in January to move the Bluebird Mine back toward full production, and output began rising slowly in the second half of the year.

The increase in interest on investments (as well as the decrease in interest paid) signals the great improvement made in the Company's financial condition during the year. At year's end, the Company had cash and equivalents of \$12,572,913, nearly quadruple those of a year earlier. The current assets-liabilities ratio rose to 4.8-1 from 2.2-1, while long-term liabilities were cut in half.

This financial strength, plus termination of the expensive and threatening litigation over the Johnny M uranium sales, will permit the Company to be much more aggressive in pursuit of new mineral and energy projects. Resolution of the litigation also permits the Company to sell additional production from the Johnny M, and an agreement to commit another two million pounds of future production is being negotiated. One million of this amount would be for the Company's account.

Highlights of 1979

1. Earnings were a record \$3.01 per share (undiluted), compared to \$2.72 in 1978. Quarterly earnings were: \$.81, \$.84, \$.68 and \$.68.

2. The Company ended the year in strong financial condition, with a current assets-liabilities ratio of 4.8-1 and cash and equivalents equal to about \$9 per share.

3. Cash dividends of \$.10 per share were declared in the third and fourth quarters, the first paid by the Company since 1963.

4. Litigation over sale of uranium production from the Johnny M Mine was settled in March.

5. The Company's share of production from the Johnny M totaled 337,510 pounds of U_3O_8 , a decrease of 27 percent from 1978.

6. The Company's share of uranium production from the Hope Mine totaled 98,285 pounds of U_3O_8 in ore, an increase of 46 percent over the prior year.

7. The uranium mill tailings treatment project at Naturita, Colorado produced 182,751 pounds of U_3O_8 ;

the second phase of the project at Durango, Colorado was deferred.

8. Uranium royalties totaled \$1,704,088, compared to \$1,829,397 a year ago.

9. A decision was made in January to resume full production at the Bluebird Mine where low copper prices reduced output for the year by 33 percent.

10. Uranium exploration continued, test mining projects were readied at the Alaskan gold placers and Escalante Silver Mine, and investigations of geothermal steam projects were begun.

The Company is actively examining two new areas of possible expansion: precious metals and geothermal steam. The Company conducted a test mining program at its Alaskan gold placers this summer and is presently analyzing data on reserves and mining costs. The rise in gold prices could make it profitable to operate these properties for the first time next year.

The sharp rise in silver prices has also prompted the Company to proceed with a test mining program at the Escalante Silver Mine, where more than 18 million ounces of silver have been drilled out.

The Company is also investigating the possibility of organizing a gold and silver exploration venture, which could be offered to private investors on a limited partnership basis.

The Company is evaluating various approaches to entering the geothermal steam business, ranging from exploration for steam fields to development of known reservoirs. The latter

approach is attractive because of a federal loan program which guarantees up to 75 percent of investments in geothermal projects through non-recourse loans. The Company has made preliminary studies of a project in which steam would be purchased from a known, but as-yet-undeveloped, field. Power generated with the steam would be sold to an electric utility.

The Company has been expanding rapidly (income has doubled and earnings have tripled in the past three years), and management expects that an above average rate of growth will continue. Additional diversification will be sought, with the ultimate goal of producing at least five different metals or forms of energy. The Company has demonstrated the ability to move quickly in employing new technologies to exploit investment opportunities; this ability, coupled with improving financial resources, should help maintain a high rate of growth in the years ahead.

Management expects another good year in 1980. Sales may decline a bit and the product mix will change, but earnings should increase signifi-

cantly, provided the Johnny M and Bluebird mines produce as expected and copper prices remain near current levels. Production at the Johnny M Mine should improve, perhaps by 15 percent or more, and copper output at the Bluebird Mine should increase substantially, permitting a reasonable profit for the year if market prices remain in the range of \$.90 per pound. Uranium royalties, aided by a new agreement on properties mined by United Nuclear, will increase, as will interest income. This combination of factors should lead to higher earnings as the Company begins its 26th year of operation.

September 17, 1979



Maxie L. Anderson
President



Management Discussion & Analysis

The Company had record income and earnings in 1979. Revenues totaled \$39,497,054, an increase of 15 percent over the \$34,444,496 received in 1978. Net income was \$4,328,842, up 11 percent over the \$3,916,986 received in the preceding year. Earnings per share were \$3.01 (\$2.92 fully diluted), an increase of 11 percent over the \$2.72 (\$2.62 diluted) recorded in 1978.

Income and earnings came from five major sources in 1979: uranium mining, treatment of uranium mill tailings to recover uranium and vanadium, copper mining, uranium royalties, and interest on investments (see tables Pages 6-7).

Uranium Mining

The Johnny M Mine produced 337,510 pounds of uranium oxide (U_3O_8) in ore for the Company's account for the year; 377,631 pounds were sold for \$12,231,167, or \$32.39 per pound. Pre-tax profit was \$3,242,201, or \$8.59 per pound. In 1978, the Mine produced 462,487 pounds of U_3O_8 in ore for the Company's account, and 391,993 pounds were sold for \$12,308,474, or \$31.40 per pound. Pre-tax profit for the year was \$5,433,188, or \$13.86 per pound. The 27 percent decline in production — which strongly affected profits because of fixed costs at the Mine — resulted from mining 24 percent fewer tons of ore.

The Hope Mine, a small producer whose output is sold directly to United Nuclear in the form of ore, was highly profitable during the year. The Company's share of production (the mine is 50 percent owned by Chaco Energy) totaled 31,580 tons of ore with an average grade of .16 percent. This ore was sold for \$2,838,912 or \$28.27 per pound. The production represented an increase of seven percent

over the 29,577 tons of ore produced in 1978. That ore had a grade of .11 percent and was sold for \$1,503,441, or \$23.81 per pound. Profit was nearly \$12 per pound in 1979, compared to profit of only a few cents per pound in 1978.

Uranium Tailings

Leaching of uranium mill tailings contributed revenues of \$12,491,067 and pre-tax profits of \$2,399,076 in 1979. In 1978, the project produced revenues of \$8,841,737 and pre-tax profits of \$2,083,456. This year's revenue included \$9,601,714 from sale of 213,489 pounds of U_3O_8 and \$2,889,353 from sale of 1,198,342 pounds of vanadium, a by-product of the operation. The U_3O_8 was sold for \$44.98 per pound for a pre-tax profit of \$11.24 per pound; the vanadium was sold for \$2.41 per pound for a profit of \$.84 per pound. In 1978, the project produced revenues of \$7,406,079 from sale of 166,954 pounds of U_3O_8 and \$1,435,658 from sale of 636,938 pounds of vanadium. The U_3O_8 was sold for \$44.36 per pound for a profit of \$9.51 per pound, and the vanadium for \$2.25 per pound for a profit of \$.78 per pound.

Copper Mining

The Company's copper mines operated at about a breakeven level for the year as a result of low copper prices which reduced production. Rev-

enues totaled \$9,125,191 and profits \$167,626, compared to revenues of \$8,654,520 and a loss of \$399,424 in 1978. The Bluebird Mine, where production declined by 33 percent, had sales of \$8,178,117, compared to \$7,740,921 a year ago; pre-tax profits were \$184,088, compared to a loss of \$252,458 (pre-tax) last year. The Big Mike Mine had sales of \$959,074 from production and inventory and pre-tax profits of \$239,149. Sales in 1978 were \$797,075, resulting in a loss of \$9,485. The Old Reliable Mine was not operated in 1979, although maintenance and rehabilitation costs of \$255,612 were expensed during the year.

Royalties/Interest

Royalties from uranium properties totaled \$1,704,088 for the year, compared to \$1,829,397 in 1978, a decrease of seven percent. Interest on investments — primarily short-term certificates of deposit and bank commercial paper — totaled \$657,925, compared to \$75,712 in 1978. Miscellaneous income was \$141,459. The Company also received \$189,315 in revenues in 1979 from Ran-Con, a mine contracting subsidiary, compared to \$952,775 in 1978.

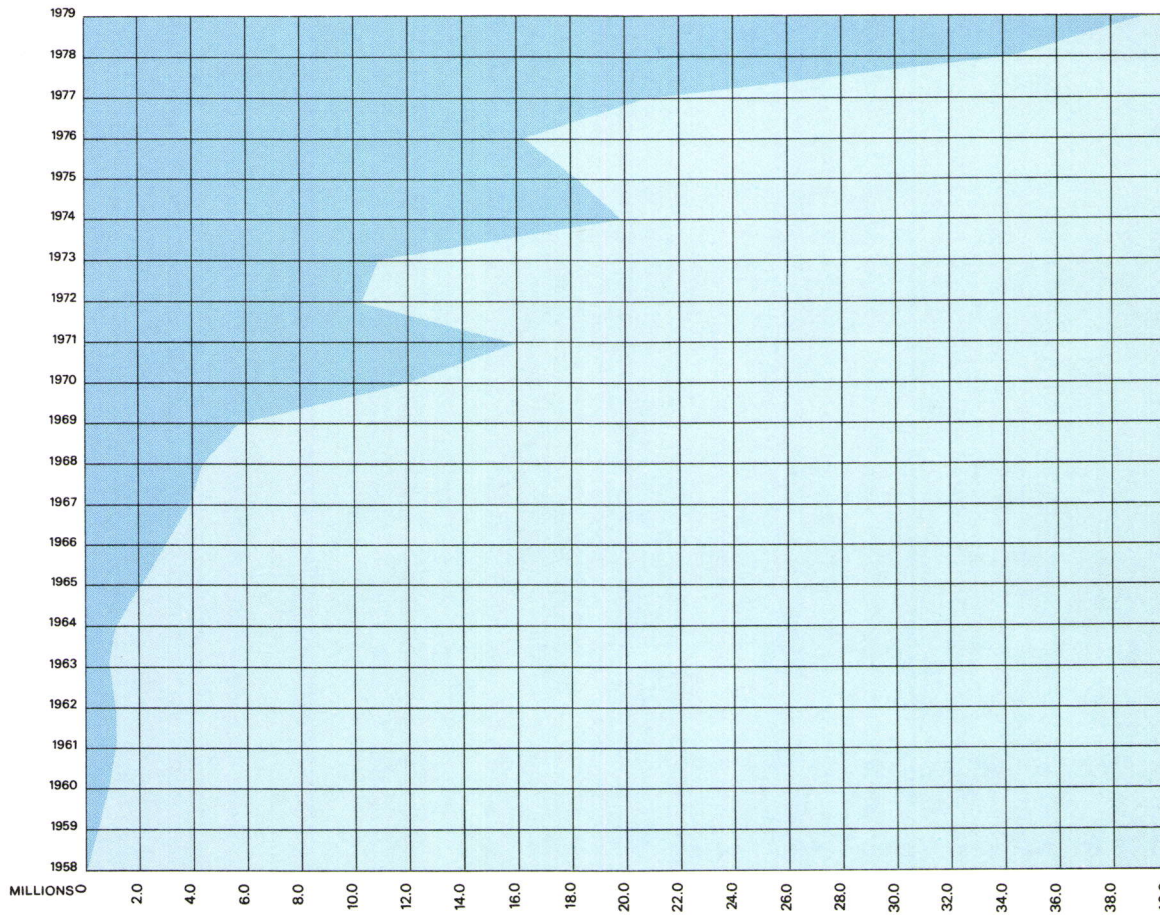
Expenses & Writeoffs

Exploration and property maintenance expenses increased 28 percent for the year, totaling \$1,479,221, compared to \$1,160,093 in 1978. The Company also wrote off \$830,320 (pre-tax) in engineering and site evaluation costs at the tailings treatment project at Durango, Colorado.

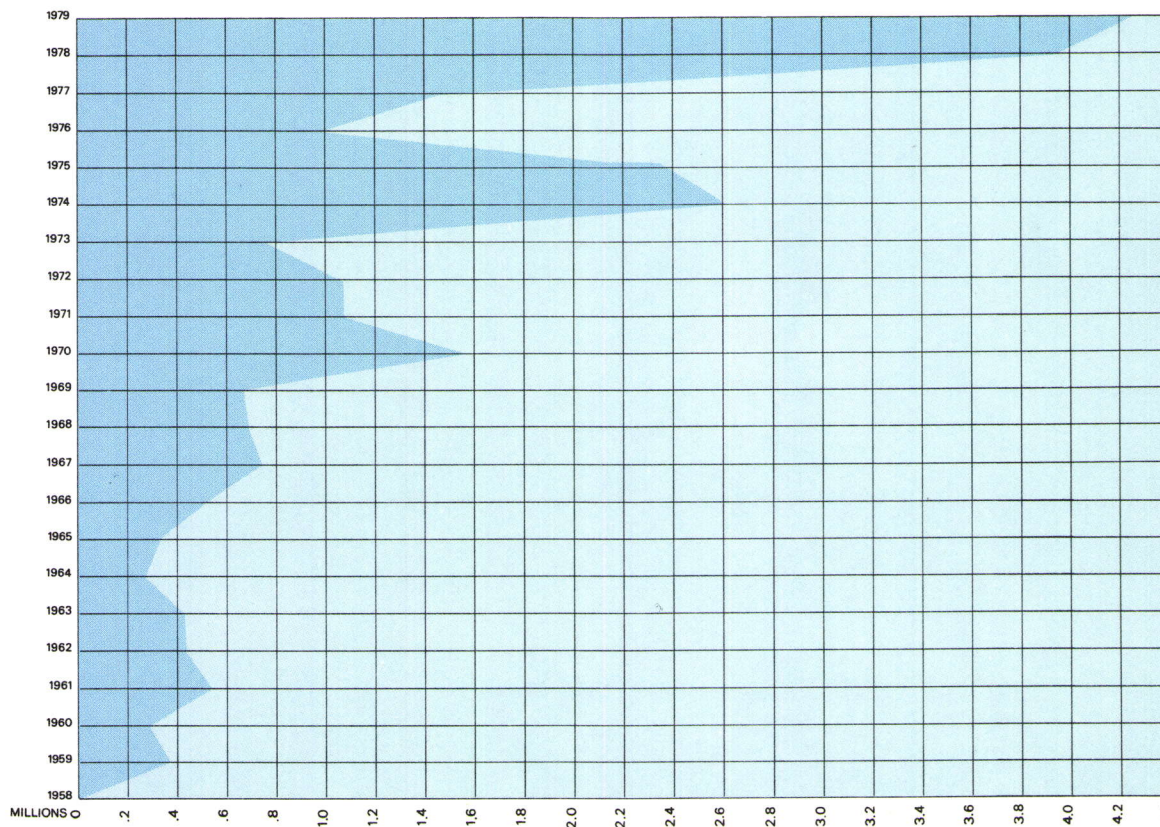
The Company repaid \$2,250,000 in bank loans during the year, essentially eliminating all short term indebtedness. Long-term debt declined to \$1,817,876 from \$3,472,740 in 1978. Return on total stockholders' equity for the year was 18 percent.

Earnings Per Share 1958-1979
(Adjusted for All Stock Splits)

1958	\$ (.01)	1969	\$.49
1959	.29	1970	1.06
1960	.23	1971	.70
1961	.42	1972	.71
1962	.36	1973	.52
1963	.35	1974	1.73
1964	.22	1975	1.64
1965	.28	1976	.69
1966	.43	1977	1.03
1967	.61	1978	2.72
1968	.56	1979	3.01



Gross
Income/
1958-1979



Net
Income/
1958-1979

Summary of Operations 1979-1970

	(000 omitted except for per share amounts)									
	<u>1979</u>	<u>1978</u>	<u>1977</u>	<u>1976</u>	<u>1975</u>	<u>1974</u>	<u>1973</u>	<u>1972</u>	<u>1971*</u>	<u>1970*</u>
Income:										
Net Sales	\$36,994	\$32,508	\$18,284	\$14,224	\$16,713	\$19,190	\$ 9,777	\$ 9,343	\$15,193	\$11,040
Uranium Royalties	1,704	1,829	2,744	1,797	1,136	526	818	746	724	611
Interest and Other	<u>799</u>	<u>107</u>	<u>133</u>	<u>157</u>	<u>485</u>	<u>73</u>	<u>43</u>	<u>121</u>	<u>158</u>	<u>276</u>
	39,497	34,444	21,161	16,178	18,334	19,789	10,628	10,210	16,075	11,927
Deductions from Income:										
Cost of Products Sold	30,232	25,490	16,740	12,313	12,665	14,655	8,614	7,993	13,388	8,371
Exploration, Conservation and Maintenance of Mining Properties	1,479	1,160	847	813	822	445	257	332	448	364
Administrative and General Expenses	1,464	1,362	851	969	947	742	552	522	575	417
Interest Expense	<u>293</u>	<u>765</u>	<u>432</u>	<u>407</u>	<u>385</u>	<u>429</u>	<u>184</u>	<u>223</u>	<u>562</u>	<u>304</u>
	33,468	28,777	18,870	14,502	14,819	16,271	9,607	9,070	14,973	9,456
Income from Operations before Applicable Income Taxes	6,029	5,667	2,291	1,676	3,515	3,518	1,021	1,140	1,102	2,471
Income Taxes	<u>1,700</u>	<u>1,750</u>	<u>800</u>	<u>699</u>	<u>1,126</u>	<u>900</u>	<u>236</u>	<u>81</u>	<u>171</u>	<u>694</u>
Income before Extraordinary Item	4,329	3,917	1,491	977	2,389	2,618	785	1,059	931	1,777
Extraordinary Income (Loss) Net of Applicable Income Taxes	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>13</u>	<u>141</u>	<u>(195)</u>
NET INCOME	<u>\$ 4,329</u>	<u>\$ 3,917</u>	<u>\$ 1,491</u>	<u>\$ 977</u>	<u>\$ 2,389</u>	<u>\$ 2,618</u>	<u>\$ 785</u>	<u>\$ 1,072</u>	<u>\$ 1,072</u>	<u>\$ 1,582</u>
Net Income per Common Share:										
Primary	<u>\$3.01</u>	<u>\$2.72</u>	<u>\$1.03</u>	<u>\$.69</u>	<u>\$1.64</u>	<u>\$1.73</u>	<u>\$.52</u>	<u>\$.71</u>	<u>\$.70</u>	<u>\$1.06</u>
Assuming Full Dilution	<u>\$2.91</u>	<u>\$2.62</u>	<u>\$1.01</u>	<u>\$.69</u>	<u>\$1.59</u>	<u>\$1.67</u>	<u>\$.52</u>	<u>\$.70</u>	<u>\$.70</u>	<u>\$1.02</u>
Average Shares Outstanding	1,439	1,440	1,447	1,417	1,460	1,512	1,512	1,518	1,530	1,497

*Restated

Product Summary 1979-1975

(Dollars in Thousands)	1979		1978		1977		1976		1975	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Revenues										
Copper	\$ 9,125	24%	\$ 8,655	25%	\$11,939	57%	\$11,985	75%	\$15,236	86%
Uranium	24,789	64	21,464	63	4,562	22	—	—	—	—
Uranium Royalties	1,704	4	1,829	5	2,744	13	1,797	11	1,136	6
Other Metals	2,890	7	1,437	4	293	1	279	2	50	—
Contract Services	189	1	953	3	1,491	7	1,960	12	1,427	8
Total	<u>\$38,697</u>	<u>100%</u>	<u>\$34,338</u>	<u>100%</u>	<u>\$21,029</u>	<u>100%</u>	<u>\$16,021</u>	<u>100%</u>	<u>\$17,849</u>	<u>100%</u>
Sources of Earnings:										
Copper	\$ 168	2%	\$ (399)	(5)%	\$ 861	20%	\$ 1,743	47%	\$ 3,909	75
Uranium	5,817	68	7,026	80	477	11	—	—	—	—
Uranium Royalties	1,704	20	1,829	21	2,744	64	1,797	48	1,136	22
Other Metals	808	10	308	3	(37)	—	(169)	(5)	(124)	(2)
Contract Services	(32)	—	82	1	244	5	336	10	263	5
Total	<u>8,465</u>	<u>100%</u>	<u>8,846</u>	<u>100%</u>	<u>4,289</u>	<u>100%</u>	<u>3,707</u>	<u>100%</u>	<u>5,184</u>	<u>100%</u>
Exploration, Conservation and Maintenance of										
Mining Properties	(1,479)		(1,160)		(847)		(813)		(822)	
Other Income and Expense, Net*	(957)		(2,019)		(1,151)		(1,219)		(847)	
Income Taxes	<u>(1,700)</u>		<u>(1,750)</u>		<u>(800)</u>		<u>(698)</u>		<u>(1,126)</u>	
Net Income	<u>\$ 4,329</u>		<u>\$ 3,917</u>		<u>\$ 1,491</u>		<u>\$ 977</u>		<u>\$ 2,389</u>	

*Includes interest income and other income, and unallocated administrative and interest expense.

Uranium Royalties

Company's Original Source of Income Still Major Asset After Two Decades

Uranium royalties from properties in northwest New Mexico were the Company's only significant source of income during its first decade and remain, after more than 20 years, a major asset, producing profits which would normally require several millions in sales to generate. Through the years the Company has perhaps received as much income from uranium royalties — about \$22 million — as any other company.

The royalties come from properties mined by Kerr McGee and United Nuclear. When the Company was formed in 1954, its founders contributed leases, mining claims and permits on some 100,000 acres, but only a small portion of this acreage contained commercial reserves of uranium. All productive lands fall within the Ambrosia Lake district in McKinley and Valencia counties (see map Page 11) in New Mexico.

At one time or another, production has come from 10 sections, and today nine of the properties are in production—Sections 18, 20, 30, 35, and 29 in Township 14 North, Range 9 West, and mined by Kerr McGee; Section 26, T. 14N., R. 10W., mined by Kerr McGee, and Sections 27, 28, and 34, T. 14N., R. 9W., mined by United Nuclear.

Most of the royalties presently come from Section 30, being mined from two shafts. In 1979, this property pro-

duced about 78 percent of the royalties, with production from other sections mined by Kerr McGee accounting for an additional 18 percent of the total, and sections mined by United Nuclear accounting for the remaining four percent.

The royalties are based on U_3O_8 ore grade and the sales price of uranium oxide — the higher the grade and selling price, the higher the royalty. In general, the royalties do not yet reflect current uranium prices of \$43 per pound, but rather earlier sales contracts at lower prices.

Mining of the royalty-bearing properties began in 1957 when Phillips Petroleum began developing the Ann Lee Mine on Section 28. Kerr McGee began developing Section 30 later that year, and both companies began milling operations in 1958, with Phillips paying the first royalties of \$90,938. Phillips later sold its interests in the properties to United Nuclear.

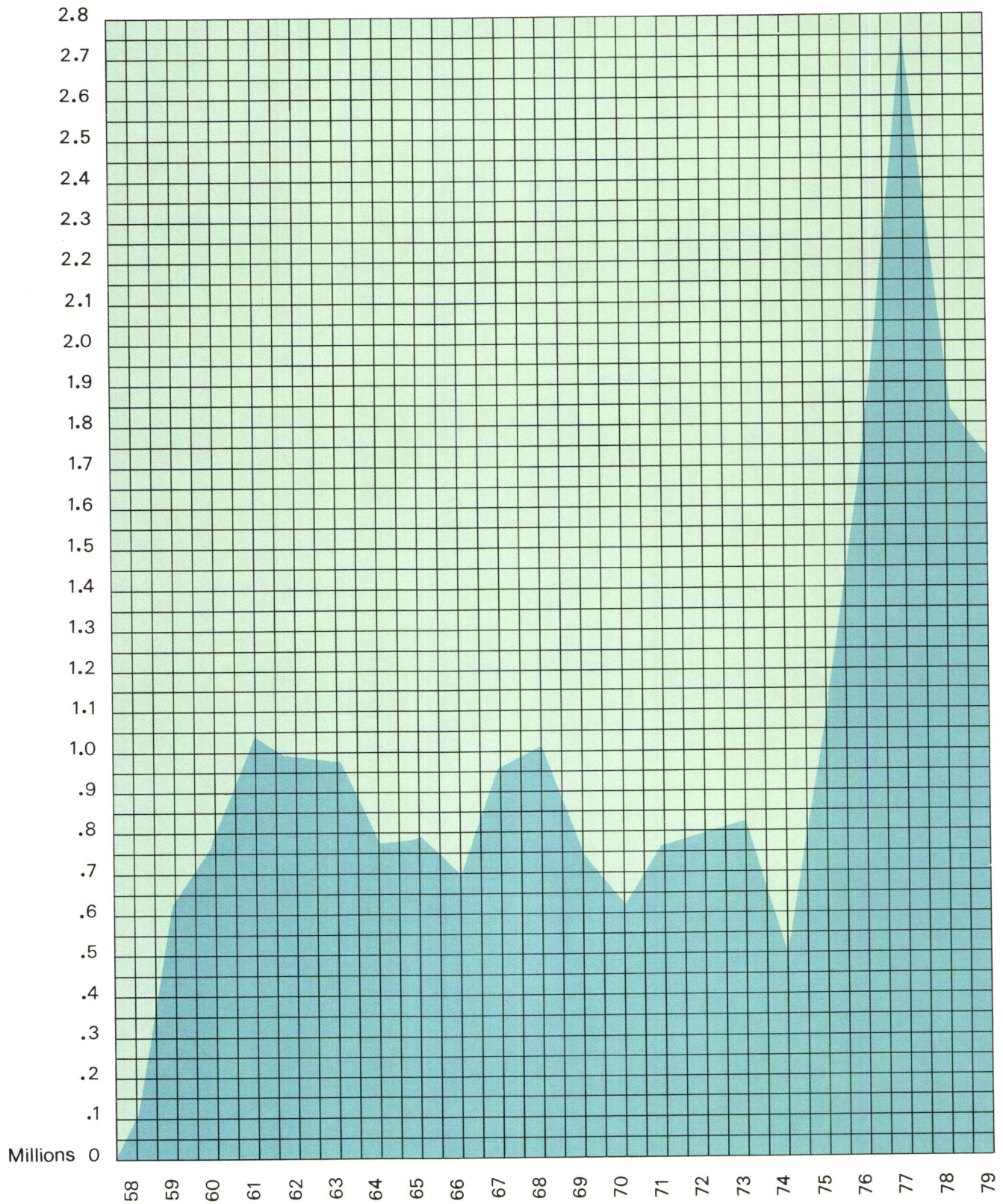
Royalties reached \$1 million in 1961, a level not again attained until 1968. During intervening years, the Atomic Energy Commission began its contract stretchout program, designed to partially bridge the gap in uranium procurement during those years when AEC requirements began to taper off and power reactor demands began.

This demand was slow in building, and uranium prices slipped to \$5 to \$6 per pound, in some cases, with the result that the Company's royalties fell to an average of about \$750,000 annually. The low of \$525,762 was reached in 1974, when a strike further reduced returns. Prices have

since risen, and in the past five years royalties have averaged about \$1,840,000 annually.

Royalties are expected to increase during the next several years as result of a new agreement reached with United Nuclear in September (1979) and still subject to approval by United's Board of Directors. This agreement, which resolves litigation pending since 1974, provides for an adjustment on past and future royalties, principally from the Sandstone and Ann Lee mines and for continued operation of the mines by United Nuclear. The adjustment on prior production amounted to approximately \$1.35 million, which will be included in earnings for the first quarter of fiscal year 1980. Future royalties will be about \$2.50 per pound of U_3O_8 produced, increasing the Company's total royalties by an estimated \$500,000 annually for the next several years.

The Company estimates that royalties on the various properties in the Ambrosia Lake area will continue for at least 10 years. In the 21 years since production began, the properties have produced about 20 million tons of ore with an average grade of approximately .20 percent—about four pounds of U_3O_8 per ton. The properties have thus through the years produced about 80 million pounds of U_3O_8 — a significant fraction of the nation's total output.



Uranium Royalties 1958-1979

Uranium Operations

Output Comes from Two Mines, Mill Tailings; Exploration Continues, Reserves Drilled Out

The Company's uranium operations in 1979 were centered at two mines — Johnny M and Hope — in New Mexico and the mill tailings treatment project at Naturita, Colorado. Production for the year totaled 618,546 pounds of U_3O_8 , compared to 727,684 pounds in 1978.

Production at the Johnny M, jointly owned with HNG Oil Company, was well below that of a year ago, the Company's share totaling 70,859 tons of ore containing 337,510 pounds of U_3O_8 — a grade of .238 percent. In 1978, production was 93,590 tons of ore and 462,487 pounds of U_3O_8 — a grade of .247 percent. Production was reduced as a result of constraints stemming from an accident at the mine and delay in bringing the mine's northwest ore body on Section 7 into production on schedule. This deposit, which contains an estimated 40 percent of the mine's original reserves, produced 17 percent of the year's output, while the central deposits on Section 7 produced about 40 percent of the tonnage and the deposit on Section 18, the remaining 43 percent. Development of the northwest deposit is nearing completion, and it should be a major contributor to production in the second half of the fiscal year.

An important development in 1979 relative to Johnny M production was settlement in March of litigation with General Atomic Company over a 1972 sales contract. The settlement permits uncommitted production from the mine to be sold on the open market at current prices (rather than the \$8 to \$10 per pound specified in the original contract), with payments to General Atomic being made from profits.

The Company and HNG are presently negotiating a contract which

calls for delivery of about two million pounds of U_3O_8 beginning in 1981. The price of this material will vary with inflation and the open market price at time of delivery, but should be a minimum of \$43 per pound. The first three million pounds of production from the mine were sold by the Company and HNG to Gulf States Utilities in 1976; about 1.83 million pounds of this production has been delivered and the remainder will be delivered by March 1981. Proven reserves remaining in the mine are estimated to be about 3.1 million pounds, but the property has potential for additional ore, and \$250,000 has been budgeted for further drilling in fiscal year 1980.

The Hope Mine performed exceptionally well during 1979, producing 31,580 tons of ore and 98,285 pounds of U_3O_8 for the Company's account, compared to 29,577 tons of ore and 67,505 pounds of U_3O_8 in 1978. Efficient mining and the higher grade of ore accounted for the improved performance. The mine has limited reserves, however, and will be mined out in the new fiscal year unless additional ore is found.

The uranium mill tailings project at Naturita, Colorado was successfully completed in April, with recovery during the fiscal year of 182,751 pounds of U_3O_8 and 938,866 pounds of vanadium oxide (V_2O_5). This compares with 197,692 pounds of U_3O_8 and 896,414 pounds of V_2O_5 recovered in 1978, when leaching of the 630,000 tons of tailings began. An estimated 72 percent of the uranium in the tailings was recovered, near the maximum amount projected. The Company had expected to move and begin treating an additional 1.46 million tons of tailings at Durango, Colo-

rado this fall. However, a nuclear materials license was not issued for this phase of the operation and it has been postponed indefinitely. The Company has written off engineering and site evaluation costs for this phase, but has not yet disposed of the portable treatment plant, which remains at Naturita.

The Company terminated mining at the Small Fry Mine, near Moab, Utah in August, 1979, where uranium ore was being stockpiled. The stockpile contains an estimated 162,000 tons of ore and 294,000 pounds U_3O_8 . Production will be resumed at the mine, which contains additional reserves, when milling arrangements for the ore have been completed.

The Company continued its exploration for uranium during the year under terms of its joint ventures with Chaco Energy, HNG Oil Company, and Urangesellschaft. More than half of the drilling in 1979 was for the Chaco venture and was conducted in southeast Utah, southwest Colorado, and northwest New Mexico — including that done at the Hope Mine. Drilling for the Urangesellschaft venture was in southeast Utah.

Aside from additional reserves drilled out at the Hope Mine, the most significant discovery of the year was made by the HNG venture on Section 13 (see map Page 11) in the general area of the Johnny M Mine. About one million pounds of what appear to be commercial reserves have been drilled out on the section, and drilling is continuing. An agreement is being negotiated with lessors of the west half of Section 18 to drill this adjoining acreage, which is thought to have good potential for commercial reserves.



Scale — Square Mile (Section)

Ranchers Royalties

■ Kerr McGee ■ United Nuclear



Drilling Blast Holes at Hope Mine

Johnny M & Hope Mines

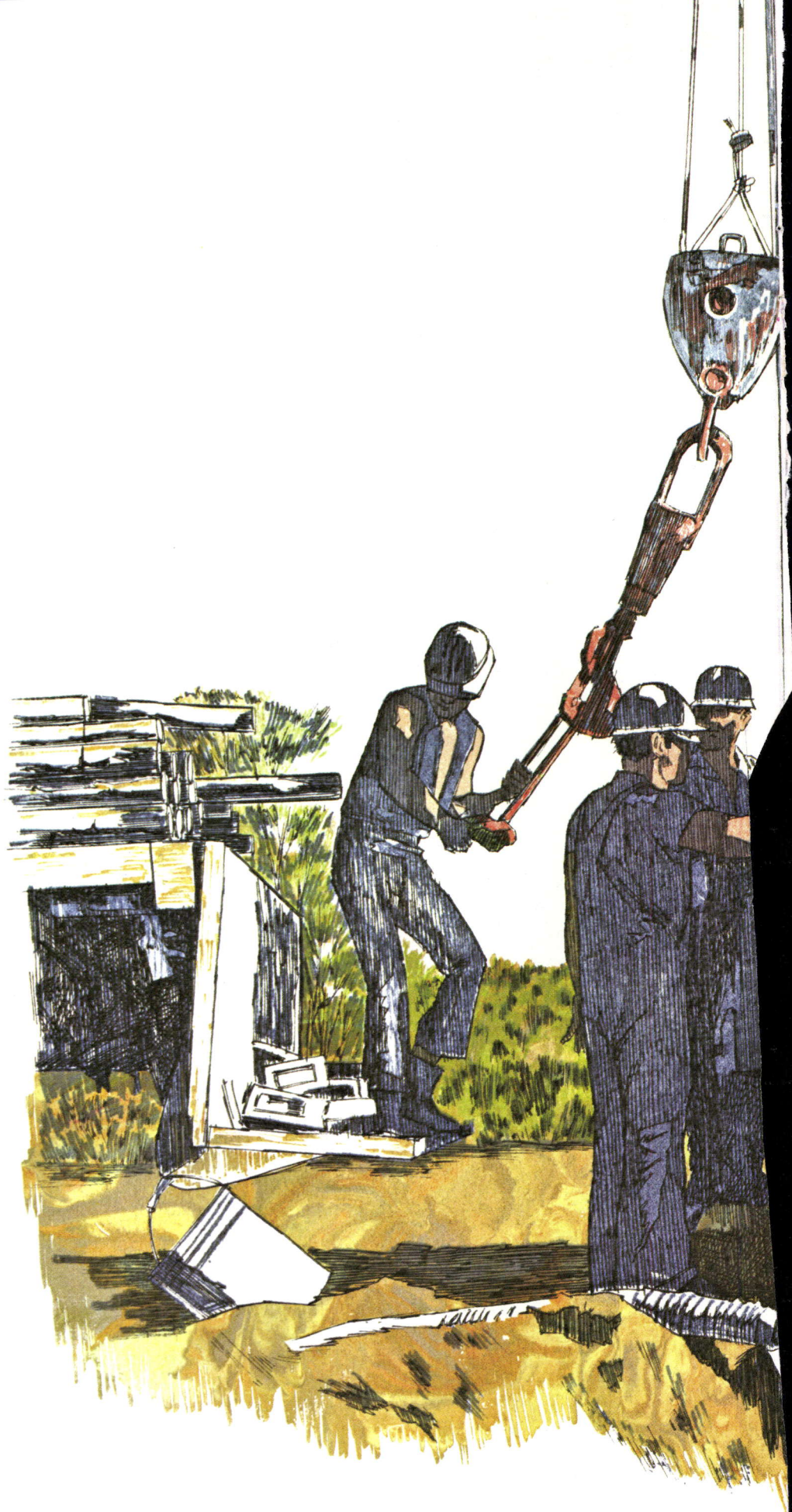
The Company's production of uranium ore in 1979 came from two underground operations — the Johnny M and Hope mines — located in north-west New Mexico. Situated at the eastern end of the Ambrosia Lake ore trend, the Johnny M was discovered late in 1968 on Section 7 (see map, Page 11), leased from the Santa Fe Railroad. The mine is owned equally with HNG Oil Company. The ore occurs at a depth of about 1,400 feet and is being mined at a grade of about .25 percent U_3O_8 — five pounds per ton. The mine consists of three deposits on Section 7 (two central ore bodies and a single deposit in the northwest part of the section) and a single deposit on the east half of Section 18, purchased from United Nuclear in 1972. A shaft was sunk on the boundary between the two sections in 1972 and mining of ore began in 1976. As of June 30, 1979, 425,456 tons of ore containing 1,917,780 pounds of U_3O_8 had been mined and processed at nearby mills. The Hope Mine is a smaller operation producing from the Todilto Limestone formation at a depth of about 500 feet. It is jointly owned with Chaco Energy. The property was acquired in 1975, reserves extended and a shaft sunk in 1976, and mining begun in 1977. As of June 30, 1979, the mine had produced 146,606 tons of ore containing 400,734 pounds of U_3O_8 .



Shift Change at Johnny M Mine

Exploration Ventures

The Company has explored for uranium since the late 1960s, forming joint ventures with larger companies to reduce the high risks inherent in any exploration effort. The Company typically contributes properties and limited exploration funds — usually about 10 percent — to a venture in exchange for about one-half interest. The first venture was formed with Combustion Engineering and Houston Natural Gas (HNG) in 1968. A second venture with Occidental Minerals and a French company was formed in 1972, followed by a third venture in 1974 with Urangesellschaft, a German company. A fourth venture was formed in 1975 with Chaco Energy, a subsidiary of Texas Utilities. In 1979 some 395,315 feet of hole was drilled, including 224,370 for the Chaco venture, 133,540 for the HNG venture, and 37,540 for the Urangesellschaft venture. Total costs for the year were \$2,290,699, including Company contributions of \$814,574. In 1978, some 390,000 feet of drilling was done. Since 1968, the Company and its partners have spent about \$18 million in exploration funds, drilled nearly three million feet of hole and discovered uranium worth several hundred million dollars at present prices. In addition to the search for uranium, the Company has explored for several other metals, forming a venture in 1974 with Marline Oil and Frontier Resources to explore for gold.





Copper Operations

Weak Market Reduces Output To Lowest Level in Decade

Low prices continued to affect the Company's copper operations in 1979 and production sank to its lowest level in a decade. Most of the production of 10,481,056 pounds came from the Bluebird Mine, although the Big Mike Mine did produce 531,432 pounds of cement copper before operations were terminated in January 1979 because reserves had been exhausted.

Prices were higher than in 1978, with the year's production sold for an average of \$.79 per pound, compared to \$.54 in the preceding year. This permitted both the Bluebird and Big Mike to show small pre-tax profits, compared to a pre-tax loss of about \$400,000 on both operations last year. However, much of this small gain was offset by rehabilitation costs of about \$255,000 at the Old Reliable Mine, where production is being resumed.

Production at the Bluebird began to decline early in 1978 following a decision to curtail mining operations in October 1977. Production continued from heaps that were already under leach and output for the year ending June 30, 1978, totaled 14,794,827 pounds. In fiscal 1979, production continued to decline throughout most of the year, although mining of ore resumed in February. Production for the year totaled 9,949,624 pounds of cathodes.

Production has been slow to return to normal levels because the existing heaps were depleted before mining of replacement ore resumed. Some 2.5 million tons of ore were mined during the year, along with 2.3 million tons of waste. Ore grade is running between .35 and .40 percent copper, compared to the mine's average of

about .50 percent on remaining reserves.

The Mine will produce approximately 900,000 pounds of cathodes per month in the first quarter of the new fiscal year. Full production of 1.2 to 1.3 million pounds per month should be reached in the second quarter. At full production, costs should decline to a range of \$.70 to \$.75 per pound, permitting a return to profitable levels of operation. As of late August, the Company had made forward sales of about seven million pounds of copper at an average price of \$.90 per pound.

Rehabilitation of the Old Reliable Mine, closed in 1975, began in the third quarter of the fiscal year, and

leaching of the deposit resumed in August. Production of cement copper is expected in the second quarter. The deposit contains an estimated four million pounds of recoverable copper, sufficient to sustain an operation of two to three years duration, depending on copper prices.

Bluebird Mine

The Bluebird Mine, located 75 miles east of Phoenix on the outskirts of Miami, Arizona, has been a proving ground for new copper recovery techniques. In operation since late 1964, it represents perhaps the first time that large tonnages of oxidized copper ore have been profitably mined and heap-leached. The Mine is also the site of the first commercial plant built to recover copper by solvent extraction-electrowinning. The property is mined by ripping the oxide ore from an open pit and placing it in large heaps through which a weak solution of sulfuric acid is circulated. The resulting copper sulfate solution was initially pumped to a precipitation plant for production of cement copper, but in March 1968 production of cathodes by SX-electrowinning began. This method uses a solvent to concentrate the copper in solution so that it can be economically recovered by conventional electrolysis. Before the new plant was installed, the mine produced about 23 million pounds of cement copper; since that time approximately 151 million pounds of cathodes have been produced. Record output was 17,916,207 pounds in 1977. Production has been derived from about 41 million tons of ore. Substantial reserves remain on the property.

Bluebird Mine 1965-1979

Fiscal Year	Pounds Produced*	Produced Copper Sales**
1965	3,317,091	\$ 909,641
1966	6,389,016	1,964,415
1967	8,277,878	2,784,852
1968	6,685,713	2,575,266
1969	8,791,154	4,509,357
1970	10,556,855	5,795,919
1971	11,859,533	6,671,147
1972	13,987,840	6,900,143
1973	14,774,225	7,570,700
1974	14,973,477	10,769,231
1975	15,210,597	11,268,277
1976	16,431,184	10,752,480
1977	17,916,207	12,044,474
1978	14,794,827	7,740,921
1979	9,949,624	8,178,117
Total	173,915,221	\$100,434,940

*Cathodes except for 23,349,124 pounds of cement copper produced 1965-1968

**Does not include starter sheets purchased and resold

Statements of Changes in Consolidated Financial Position

Ranchers Exploration and Development Corporation and Subsidiaries

27

Year Ended June 30, 1979 and June 30, 1978

	1979	1978
SOURCE OF FUNDS		
Net income	\$ 4,328,842	\$ 3,916,986
Add charges to income not requiring working capital:		
Provision for depreciation, depletion and amortization	4,706,887	5,064,812
Amortization of debt expense	12,364	5,779
Provision for deferred income taxes	<u>800,000</u>	<u>900,000</u>
TOTAL FROM OPERATIONS	9,848,093	9,887,577
Increase in long-term debt	—	6,171,404
Proceeds from sale of treasury stock	14,188	89,467
Carrying amount of property, plant and equipment disposals	181,818	12,460
Decrease in investment in joint ventures	<u>1,498,693</u>	<u>950,975</u>
TOTAL	11,542,792	17,111,883
APPLICATION OF FUNDS		
Decrease in long-term debt	1,654,864	5,247,600
Additions to land	—	374,606
Additions to buildings and equipment	497,462	8,769,797
Additions to mineral interests, mining claims, leases and permits	—	63,735
Increase in other assets	128,600	2,363,869
Purchase of common stock for treasury	357,642	—
Cash dividends declared	<u>283,681</u>	<u>—</u>
TOTAL	<u>2,922,249</u>	<u>16,819,607</u>
INCREASE IN WORKING CAPITAL	<u>\$ 8,620,543</u>	<u>\$ 292,276</u>
CHANGE IN COMPONENTS OF WORKING CAPITAL		
Increase (decrease) in current assets:		
Cash, certificates of deposit and short-term investments	\$ 9,309,035	\$ 189,835
Trade accounts receivable	149,146	373,429
Inventories	(1,709,277)	(409,717)
Prepaid expenses and other current assets	<u>280,699</u>	<u>(221,566)</u>
	8,029,603	(68,019)
Increase (decrease) in current liabilities:		
Trade accounts payable	(168,556)	(151,328)
Amount refundable to customer	—	(1,860,673)
Federal and state income taxes	35,900	802,312
Other liabilities	477,716	696,379
Current portion of long-term debt	<u>(936,000)</u>	<u>153,015</u>
	(590,940)	(360,295)
INCREASE IN WORKING CAPITAL	<u>\$ 8,620,543</u>	<u>\$ 292,276</u>

See notes to consolidated financial statements

Notes to Consolidated Financial Statements

NOTE A—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Ranchers Exploration and Development Corporation is engaged primarily in mining and mineral processing. The accounting principles which materially affect the determination of consolidated financial position, changes in financial position, or results of operations are summarized below.

Principles of Consolidation: The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. Upon consolidation, intercompany accounts and transactions have been eliminated. The Company's portion of sales and operating expenses arising from joint ventures are included in income and deductions from income of the Company.

Inventories: Inventories are stated at the lower of cost (principally average cost) or market. The Company hedges sales of part of its production of cathode copper through the sale of futures contracts. As these contracts are repurchased and replaced with physical sales contracts, the resulting differences are included in inventory. These amounts are then charged (or credited) to income when delivery is made under the sales contracts.

Property, Depreciation, Amortization and Depletion: The costs of maintaining and repairing property are charged to operations. The costs of additions and betterments are added to property accounts. The costs of units of property, plant and equipment retired or replaced are credited to property accounts and the corresponding allowances for depreciation, depletion or amortization are removed. Any differences between amounts received and net carrying amounts of the disposals are generally reflected in operations. Provisions for depreciation, depletion and amortization are computed using straight-line, declining-balance and units-of-production methods, at rates believed sufficient to amortize the cost of the asset over its useful life (buildings 30-40 years; machinery and equipment 3-15 years), which is the shorter of the asset's physical life or the economic life of the mine. These rates are subject to periodic review and are revised when deemed necessary to assure that the cost of the respective assets will be written off over their useful lives.

Exploration Expenses: Costs incurred in the search for new mining properties are charged against earnings when incurred.

Development Costs: Development costs to bring new mineral properties into production and for major programs of a special nature at existing mines are capitalized and amortized using the units-of-production method commencing when production begins.

Income Taxes: Deferred income taxes are provided for the effect of allowable deductions for depreciation and mine development costs in excess of amounts charged against earnings in the financial statements. Operating loss carryforwards and investment tax credit carryforwards are considered in the

determination of such deferred taxes. Investment tax credits are accounted for by use of the flow-through method.

NOTE B—INVENTORIES

Inventories consist of the following:

	1979	1978
Finished metals and metal products	\$196,851	\$1,752,301
Ore in leach heaps and stockpiles	—	252,525
Supplies	279,787	181,089
	<u>\$476,638</u>	<u>\$2,185,915</u>

Uranium ore held in stockpile inventory at the Small Fry Mine in the amount of \$2,492,472 at June 30, 1979 and \$2,363,871 at June 30, 1978 is included in other non-current assets since milling arrangements have not yet been made for processing the ore, and the timing of such arrangements is uncertain.

NOTE C—TUNGSTEN QUEEN MINE

Due to the substantial decline in the market price of tungsten, the Company suspended operations at its Tungsten Queen Mine in August 1971. The carrying amount of property, plant and equipment at the mine at June 30, 1979, was \$7,682,436. The current market price of tungsten is considerably higher than those prices received while the mine was in operation. Although it is management's opinion that the investment will ultimately be recovered through future operations or disposition of the property, the timing of any such operations or disposition remains indefinite. Until such time as plans have been finalized to re-open or dispose of the mine, all such property, plant and equipment will be maintained in a standby condition. The cost of maintenance should not be material.

NOTE D—INVESTMENT IN JOINT VENTURES

The following is a summary of the components of the Company's equity in net assets of the joint ventures in which it has investments:

	1979	1978
Current assets	\$ 838,315	\$1,286,433
Properties - net	4,658,244	6,032,802
TOTAL ASSETS	5,496,559	7,319,235
Current liabilities	2,031,842	1,105,825
Long-term debt	104,167	1,354,167
TOTAL LIABILITIES	2,136,009	2,459,992
EQUITY IN NET ASSETS	<u>\$3,360,550</u>	<u>\$4,859,243</u>

Included in the above balances are the Company's carrying amounts of property, plant and equipment, and intangible development costs aggregating \$516,549 and \$3,868,702 at June 30, 1979 and \$873,290 and \$4,227,324 at June 30, 1978, respectively, which represent its 50% share of the Ranchers-HNG Oil Company Joint Project. In addition to this carrying

amount, the Company also has \$66,966 included in mineral interests relating to the Joint Project. This Joint Project was formed to operate the Johnny M Uranium Mine in McKinley County, New Mexico.

The Ranchers-HNG Oil Company Joint Project entered into a revolving credit agreement for purposes of financing the development and equipping of the mine. Effective in November 1978 this revolving credit agreement was amended into a term loan to be repaid in twenty-one monthly payments of \$104,167 with an annual rate of interest of one per cent above 114% of the bank's prime commercial rate in effect, provided that over the full course of the loan, the total interest paid is not to exceed 8.75%. The loan is unsecured; however, the Company and HNG Oil Company are guarantors of their respective shares of the loan. At June 30, 1979, the balance of the loan guaranteed by Ranchers is \$729,167.

NOTE E—FEDERAL INCOME TAXES

During the year ended June 30, 1974, the Company paid a deficiency notice in the amount of \$1,068,190, representing additional federal income taxes assessed, including interest, for the years ended June 30, 1965 through June 30, 1971. The Company filed claims for refund of amounts paid or such greater amount as may be finally determined. The Internal Revenue Service refused to honor this claim, and the Company filed suit in the United States District Court to recover the payments. The Company has been awarded a judgment to recover \$901,698 plus interest. The Internal Revenue Service has appealed certain portions of the Court's decision to the United States Circuit Court of Appeals. No trial date has been set.

During the year ended June 30, 1976, the Company received a deficiency notice in the amount of \$630,856 representing additional federal income taxes assessed for the years ended June 30, 1972 through June 30, 1974. On June 11, 1976, the Company filed a petition with the United States Tax Court requesting adjustment of the deficiency notice. This case has not yet been scheduled for trial.

While the outcome of this litigation is uncertain, management is of the opinion that the ultimate deficiency, if any, will not have a materially adverse effect on the consolidated financial position or results of operations of the Company. Provision has been made in the deferred income tax accounts for the effect of possible adjustments, some of which are in the nature of timing differences.

In 1979 the Company utilized net operating loss and investment tax credit carryforwards in the amount of \$3,049,535 and \$552,639, respectively, all of which were credited to the deferred income tax accounts.

Investment tax credits of \$48,289 were used to reduce the 1979 provision for income taxes.

The significant difference in income taxes provided on pre-tax accounting income and income taxes that would be required at the statutory rate results from statutory depletion allowable on sales and on royalties received from mining properties.

NOTE F—LONG-TERM DEBT AND LINES OF CREDIT

The debentures are convertible into one share of common stock for each \$24.71 of principal amount, and are subordinated to all outstanding or subsequently incurred senior indebtedness. There are 66,330 shares of the Company's Common stock reserved for such conversion. The debentures are redeemable, at the option of the Company, in whole or in part at redemption prices ranging downward from 102.370% beginning January 15, 1979 to 100% beginning January 15, 1988. The indenture provides for an annual sinking fund payment in the amount of \$118,500, which can be reduced by the principal amount of debentures purchased by the Company. The indenture, among other things, provides limitations upon payment of cash dividends and the amount of common stock the Company can purchase for treasury. Retained earnings not restricted for payment of cash dividends amount to \$20,662,350 at June 30, 1979.

Debt expense incurred in connection with registration and sale of the debentures is being amortized over the life of the outstanding debentures.

At June 30, 1979 the Company had lines of credit available from commercial banks in the amounts of \$5,000,000 and \$2,500,000, respectively. Both lines are unsecured, are payable on demand, bear interest at the bank's prime rate and expire in April 1980. There have been no amounts borrowed on these lines during the year.

NOTE G—NET INCOME PER SHARE

Net income per share of common stock has been computed on the basis of the weighted average number of shares outstanding during each year and when dilutive, additional shares assuming the exercise of stock options. The computation of net income per share assuming full dilution assumes the conversion of all outstanding convertible debentures at the beginning of the year as well as the exercise, when dilutive, of all stock options.

NOTE H—LEASES AND COMMITMENTS

Total rent expense for all leases amounted to \$406,539 in 1979 and \$453,979 in 1978.

The future minimum rental commitments under noncancelable equipment leases (with a related party) totaled \$52,453 at June 30, 1979 (see Note K). These commitments for future fiscal years are June 30, 1980—\$37,901; and June 30, 1981—\$14,552.

NOTE I—STOCK OPTIONS

At June 30, 1979, 62,800 shares of common stock were reserved for issuance to certain officers and employees under the Company's stock option plans for key employees. Of the 62,800 shares reserved for options, 25,650 were covered by options outstanding and 37,150 were available for future grant. Options may be granted at prices not less than market value at date of grant, become exercisable principally in two or more equal

annual installments following dates of grant, and expire five years from date of grant. The plans provide that individual options cannot be exercised while any option previously granted at a higher price is outstanding.

In addition, 50,000 shares are reserved for issuance pursuant to a stock option purchase plan for salaried employees (except officers). No options have been granted under this plan at June 30, 1979.

In addition, the Company has granted other options, principally to directors, not under the stock option plans, which are priced at fair market value on the date of the grant and become exercisable principally in three or more equal annual installments following dates of grant, and expire five years from the date of grant.

Option transactions are summarized as follows:

	Stock Option Plans		Other		Total
	Shares	Price	Shares	Price	Shares
Outstanding July 1, 1977	26,100	9.13-18.25	44,200	9.13-18.25	70,300
Year ended June 30, 1978					
Granted	1,000	17.63 —	9,000	12.00-17.25	10,000
Cancelled	(500)	10.00 —	(4,200)	10.00 —	(4,700)
Exercised	—	— —	(7,000)	10.00 —	(7,000)
Outstanding June 30, 1978	26,600	9.13-18.25	42,000	9.13-18.25	68,600
Year ended June 30, 1979					
Granted	4,000	12.63-21.75	—	— —	4,000
Cancelled	(3,700)	10.00-21.75	(10,200)	12.75-18.25	(13,900)
Exercised	(1,250)	10.00-12.25	—	— —	(1,250)
Outstanding June 30, 1979	25,650	9.13-21.75	31,800	9.13-18.25	57,450
Exercisable June 30, 1979	19,458	9.13-20.25	16,250	9.13-18.25	35,708

NOTE J--LITIGATION

The Company and the joint owner of the Johnny M Mine, HNG Oil Company, were engaged in litigation with General Atomic Company regarding a sales agreement made in 1972 among the parties. On March 5, 1979 the Company and HNG Oil Company entered into an agreement with General Atomic Company to settle the litigation. The effect of the settlement was to terminate the joint sales agreement made in 1972 between the parties involved and to establish a new agreement. The new agreement provides that General Atomic Company will share in operating profits (sales less production costs) to the extent of approximately 50% for 2,002,000 pounds and 50% of profits exceeding \$4 a pound for 5,000,000 pounds of uranium produced and sold, in excess of the first 2,998,000 pounds produced from ore mined from the Johnny M Mine. The maximum amount to which General Atomic is entitled to share in profits is 7,002,000 pounds.

Other litigation described in prior years is not material to the Company's operations.

NOTE K--RELATED PARTY TRANSACTIONS

Mining operations at the Company's Bluebird Copper Mine,

Arizona, are being performed by Anderson Development Corporation pursuant to a mining contract with the Company. Anderson Development Corporation is wholly-owned by Carl Anderson, a principal shareholder of the Company and the father of Maxie L. Anderson, President and Chief Executive Officer of the Company. Maxie L. Anderson is also vice-president of Anderson Development Corporation. Under the terms of the contract, Anderson Development Corporation receives as payments for its services the sum of (i) its actual direct field costs, (ii) the cost of replacement or renewal of tires on equipment furnished by it, (iii) rental charges for machinery and equipment furnished by it, and (iv) 7% of the cost of direct operating labor (limited to a maximum of \$100,000 in any calendar year), plus 10% of the payments under (iii) above. The payments by the Company to Anderson Development Corporation for the fiscal year ended June 30, 1979, amounted to \$1,330,680 (1978—\$1,607,309) including \$1,215,268 (1978—\$1,327,074) of reimbursable costs, \$29,566 (1978—\$190,065) of rental charges for equipment, and \$85,846 (1978—\$90,170) constituting percentages of certain costs as described above.

NOTE L—BUSINESS SEGMENTS AND MAJOR CUSTOMERS

	Year Ended June 30	
	1979	1978
NET SALES TO UNAFFILIATED CUSTOMERS		
Uranium	\$24,789,267	\$21,464,130
Copper	9,125,191	8,654,520
Other	<u>3,079,124</u>	<u>2,389,388</u>
TOTAL SALES	<u>\$36,993,582</u>	<u>\$32,508,038</u>
OPERATING PROFIT (LOSS)		
Uranium	\$ 5,816,818	\$ 7,026,463
Copper	167,626	(399,424)
Other	<u>776,800</u>	<u>390,555</u>
TOTAL OPERATING PROFIT	<u>\$ 6,761,244</u>	<u>\$ 7,017,594</u>
OTHER INCOME		
Uranium royalties	\$ 1,704,088	\$ 1,829,397
Interest and other	<u>799,384</u>	<u>107,061</u>
TOTAL OTHER INCOME	<u>\$ 2,503,472</u>	<u>\$ 1,936,458</u>
OTHER DEDUCTIONS		
Exploration, conservation and maintenance of mining properties	\$ 1,479,221	\$ 1,160,093
Administrative and general expense	1,463,930	1,362,185
Interest expense	<u>292,723</u>	<u>764,788</u>
TOTAL OTHER DEDUCTIONS	<u>\$ 3,235,874</u>	<u>\$ 3,287,066</u>
INCOME BEFORE INCOME TAXES	<u>\$ 6,028,842</u>	<u>\$ 5,666,986</u>
IDENTIFIABLE ASSETS		
Uranium	\$10,126,231	\$17,230,368
Copper	5,099,600	5,513,995
Other	<u>622,934</u>	<u>280,846</u>
	15,848,765	23,025,209
General corporate assets	16,500,195	7,067,195
Assets of Tungsten Queen Mine held for disposition (see Note C)	<u>7,682,436</u>	<u>7,683,089</u>
TOTAL ASSETS	<u>\$40,031,396</u>	<u>\$37,775,493</u>
DEPRECIATION, DEPLETION AND AMORTIZATION		
Uranium	\$ 3,585,940	\$ 3,097,735
Copper	970,264	1,166,815
Other	30,736	642,893
General corporate assets	<u>119,947</u>	<u>157,369</u>
CAPITAL EXPENDITURES		
Uranium	149,413	8,058,417
Copper	258,496	692,113
Other	15,500	48,551
General corporate assets	<u>74,053</u>	<u>409,057</u>

Operating profit is total revenue less operating expenses, excluding interest, administrative and general expense, and expenses relating principally to exploration. Identifiable assets by industry include assets directly identified with those operations. General corporate assets consist primarily of cash, marketable securities, and other investments.

The Company has investments in joint ventures involved in domestic exploration for gold and uranium. (See Note D)

In 1979 the Company had sales to three major customers as follows: uranium—\$12,231,167 and \$9,601,714; copper—\$4,673,594. In 1978 sales to major customers were uranium—\$12,308,474 and \$7,406,079; copper—\$4,713,069.

NOTE M—SUMMARY OF QUARTERLY RESULTS OF OPERATIONS (UNAUDITED)

The following is a summary of unaudited quarterly results of operations for the years ended June 30, 1979 and 1978:

	1979			
	Quarter Ended			
	September 30	December 31	March 31	June 30
Net sales and other income	\$11,022,440	\$10,714,006	\$9,370,965	\$8,389,643
Income before income taxes	1,707,539	1,800,024	1,579,389	941,890
Net income	1,182,539	1,200,024	979,389	966,890
Net income per common share:				
Primary	<u>\$.81</u>	<u>\$.84</u>	<u>\$.68</u>	<u>\$.68</u>
Fully diluted	<u>\$.78</u>	<u>\$.80</u>	<u>\$.65</u>	<u>\$.68</u>
	1978			
	Quarter Ended			
	September 30	December 31	March 31	June 30
Net sales and other income	\$ 5,281,985	\$7,332,638	\$7,705,764	\$14,124,109
Income before income taxes	463,119	1,131,075	1,600,376	2,472,416
Net income	388,119	806,075	1,040,376	1,682,416
Net income per common share:				
Primary	<u>\$.27</u>	<u>\$.56</u>	<u>\$.73</u>	<u>\$ 1.16</u>
Fully diluted	<u>\$.27</u>	<u>\$.54</u>	<u>\$.70</u>	<u>\$ 1.11</u>

Capitalized site evaluation and plant design costs amounting to \$830,320 attributable to processing uranium mine tailings at Durango, Colorado were written off during the fourth quarter of 1979, since the Company suspended the project.

In addition, the effective annual tax rate changed during the year, resulting in an adjustment of the income tax provision during the fourth quarter of 1979.

Report of Ernst & Whinney Independent Auditors

Stockholders and Board of Directors
Ranchers Exploration and
Development Corporation
Albuquerque, New Mexico

We have examined the consolidated balance sheets of Ranchers Exploration and Development Corporation and subsidiaries as of June 30, 1979 and 1978, and the related statements of consolidated income, stockholders' equity and changes in consolidated financial position for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

As explained more fully in Note C to the consolidated financial statements, the Company has suspended operations at its

Tungsten Queen Mine. The carrying amount of property, plant and equipment at June 30, 1979, is \$7,682,436. The ultimate realization of the Company's investment in the mine is dependent upon future economic conditions which will permit recovery through the means discussed in Note C.

In our opinion, subject to the ultimate realization of the investment in the Tungsten Queen Mine, as described in the preceding paragraph, the financial statements referred to above present fairly the consolidated financial position of Ranchers Exploration and Development Corporation and subsidiaries at June 30, 1979 and 1978, and the consolidated results of their operations and changes in their financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

Ernst & Whinney
Albuquerque, New Mexico
August 2, 1979

Stock Information

Ranchers' common stock is listed on the American Stock Exchange (symbol RAN). Of the approximately 1,409,000 shares outstanding as of June 30, 1979, about half were in float. High and low prices of the stock by quarter during the last two fiscal years:

	1979	
Quarter	High	Low
First	\$23.50	\$16.25
Second	17.62	12.25
Third	20.00	13.12
Fourth	17.37	13.50
	1978	
First	\$20.00	\$14.00
Second	14.87	11.25
Third	17.62	12.00
Fourth	21.50	15.62

Cash dividends of \$.10 per common share were declared in the third and fourth quarters, the first dividends paid since 1963.

Transfer agent and registrar: Republic National Bank of Dallas, Corporate Trust Department, Dallas, Texas 75221; Manufacturers Hanover Trust Company, Corporate Trust Department, 40 Wall Street, New York, New York 10015.

Additional information about the Company: Leland O. Erdahl, Vice President, Finance or Marvin K. Kaiser, Treasurer; Phone: 505-344-3542. Address: Post Office Box 6217, Albuquerque, New Mexico 87197.

Form 10-K available on request.

Annual shareholders meeting: November 9, 1979, 10 a.m., at the Company offices.

THE 1979 ANNUAL REPORT

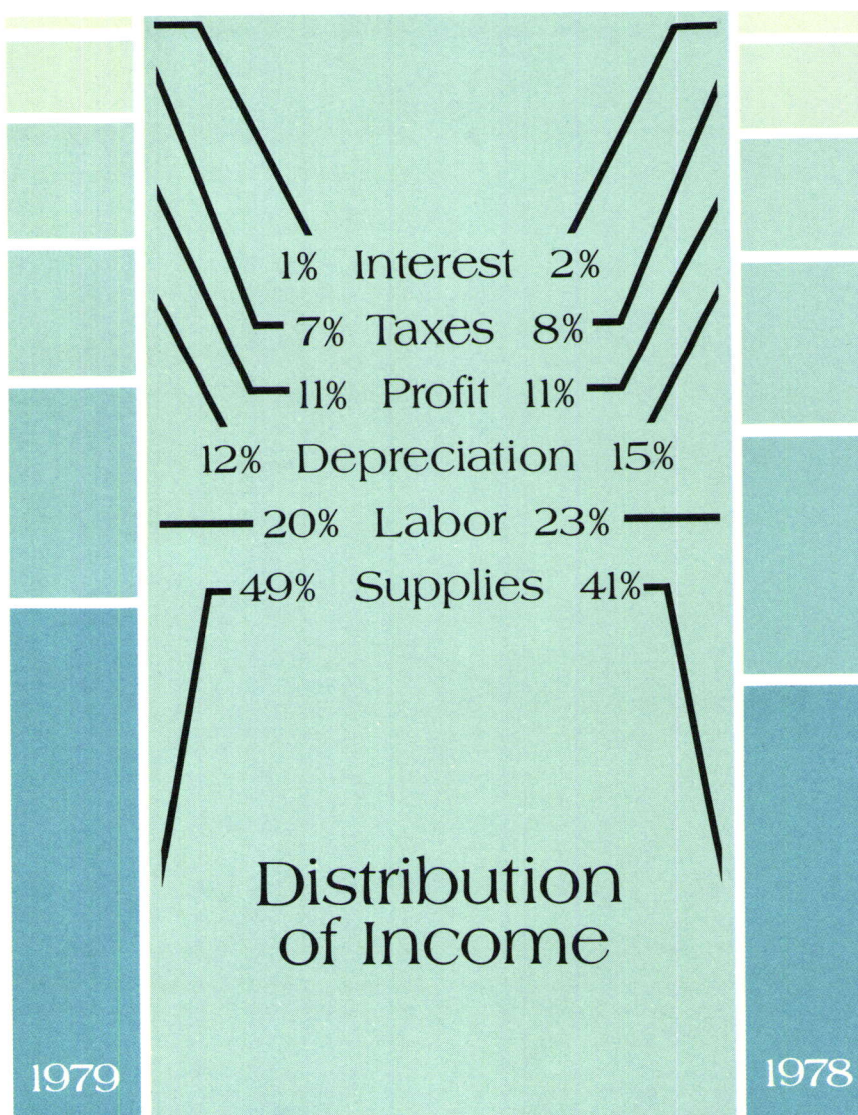
Design and Layout — Mary Garriott

Artwork — Mary and Gene Garriott

Color Separations — Southwest Color Separations

Typography — Reay's Typographic Service, Inc.

Printing — The McLeod Printing Company



The Company's gross income totaled \$39,497,054 in 1979. This income was used in the following manner:

\$19,446,460, or 49 percent, went to suppliers for the various goods and services needed to conduct the Company's business.

\$7,740,255, or 20 percent, was spent on labor, including social security and insurance for the Company's approximately 350 employees.

\$4,706,887, or 12 percent, was provided for depreciation, amortization, and depletion of property, plant, and equipment.

\$2,981,887, or 7 percent, was paid in federal, state, and local taxes.

\$292,723 was paid in interest. These expenditures totaled \$34,869,489, leaving a net profit of \$4,328,842, or 11 percent of the gross income for the year. This amounted to \$3.01 per share on the 1,439,251 shares of common stock held by the Company's approximately 1500 stockholders of record. Shareholders received dividends of \$.10 per share in the third and fourth quarters — a total of \$283,681, or about one percent of gross income for the year.

Company Chronicle

The Company observed its Silver Anniversary in 1979. Highlights of the first 25 years:

1954-55

Charter of Incorporation issued by State of New Mexico, July 7, 1954 to 11 original incorporators.

1956

Uranium ore discovered on Sections 28, 34, 30 and 18 in Ambrosia Lake, New Mexico.

1957

Phillips Petroleum and Kerr McGee begin development of mines on Sections 28 and 30.

1958

Milling begins on ore from Sections 28 and 30; first royalties paid by Phillips Petroleum.

1959

Royalties exceed \$400,000; mining begins on Section 34; dividend of \$.10 per share declared.

1960

Royalties total \$788,000; dividend of \$.15 per share declared.

1961

Royalties exceed \$1 million for first time; investments made in bank, electronics, and programmed teaching.

1962-63

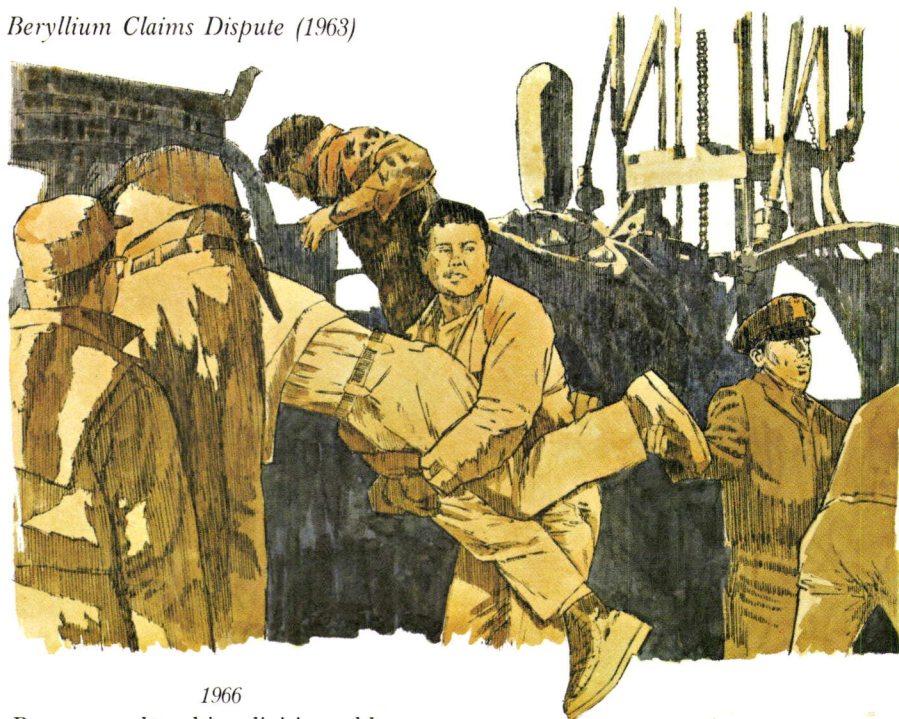
Maxie Anderson becomes manager and then president of Company; bank and electronics division sold as Company concentrates on mining, including dispute over Utah beryllium claims.

1964

Bluebird Copper Mine acquired in March; production begins in October.

1965

Revenues, bolstered by copper revenues, exceed \$2 million for first time.



1966

Programmed teaching division sold, consolidating Company's position in mining business.

1967

Revenues exceed \$3 million and earnings reach \$1 per share for first time; world's first solvent extraction-electrowinning plant constructed at Bluebird Mine.

1968

Uranium exploration venture formed in April, finds Johnny M deposit in November; first copper cathodes produced at Bluebird in March; Tungsten Queen Mine acquired.

1969

Revenues exceed \$5 million; Big Mike Mine acquired, and 100,000 new shares of common stock and \$3 million in debentures sold.

1970

Revenues approach \$12 million as mining of Tungsten Queen and Big Mike mines begins.

1971

Revenues exceed \$16 million; Old Reliable Mine acquired; Tungsten Queen closed; reserves at Bluebird increased to 75 million tons.



1972

Old Reliable deposit shattered with world's largest non-nuclear blast; new uranium exploration venture formed; shaft for Johnny M Mine begun.

1973

Second phase of Big Mike project begun with detonation of 400,000 pounds of explosives.

1974

Gold exploration venture and two uranium ventures formed; copper production exceeds 20 million pounds.

1975

Uranium royalties reach high of \$1,135,786; Small Fry Mine acquired.

1976

Royalties total \$1.8 million; shaft sunk at Hope uranium mine; production begins at Johnny M; Colorado uranium mill tailings acquired.

1977

Revenues exceed \$20 million; uranium royalties total \$2.8 million; production begins at tailings treatment project.

1978

Earnings exceed \$2 for first time; revenues total more than \$34 million.

1979

Earnings exceed \$3 per share for first time; revenues approach \$40 million; litigation over Johnny M sales settled; dividends of \$.10 per share declared in third and fourth quarters.

Statements of Consolidated Income

Ranchers Exploration and Development Corporation and Subsidiaries

Year Ended June 30, 1979 and June 30, 1978

	1979	1978
Income:		
Net sales	\$36,993,582	\$32,508,038
Uranium royalties	1,704,088	1,829,397
Interest and other	<u>799,384</u>	<u>107,061</u>
	39,497,054	34,444,496
Deductions from income:		
Cost of products sold	30,232,338	25,490,444
Exploration, conservation and maintenance of mining properties	1,479,221	1,160,093
Administrative and general expenses	1,463,930	1,362,185
Interest expense	<u>292,723</u>	<u>764,788</u>
	33,468,212	28,777,510
INCOME BEFORE INCOME TAXES	6,028,842	5,666,986
Income taxes—Note E:		
Current	900,000	850,000
Deferred	<u>800,000</u>	<u>900,000</u>
	1,700,000	1,750,000
NET INCOME	<u>\$ 4,328,842</u>	<u>\$ 3,916,986</u>
Net income per common share—Note G	<u>\$3.01</u>	<u>\$2.72</u>
Net income per common share—assuming full dilution—Note G	<u>\$2.91</u>	<u>\$2.62</u>

Statements of Consolidated Stockholders' Equity

Ranchers Exploration and Development Corporation and Subsidiaries

Year Ended June 30, 1979 and June 30, 1978

	1979	1978
COMMON STOCK		
BALANCE AT BEGINNING AND END OF YEAR	<u>\$ 771,114</u>	<u>\$ 771,114</u>
CAPITAL IN EXCESS OF PAR VALUE		
Balance at beginning of year	\$ 5,530,053	\$ 5,521,473
Proceeds in excess of cost of treasury shares sold under stock option plan	<u>846</u>	<u>8,580</u>
BALANCE AT END OF YEAR	<u>\$ 5,530,899</u>	<u>\$ 5,530,053</u>
RETAINED EARNINGS		
Balance at beginning of year	\$19,326,582	\$15,409,596
Net income for the year	4,328,842	3,916,986
Cash dividends declared	<u>(283,681)</u>	<u>—</u>
BALANCE AT END OF YEAR	<u>\$23,371,743</u>	<u>\$19,326,582</u>
TREASURY STOCK		
Balance at beginning of year	\$ 1,105,345	\$ 1,186,232
Shares purchased for treasury—24,700 shares	357,642	—
Shares sold under option plan— (1979 - 1,250 shares; 1978 - 8,834 shares)	<u>(13,342)</u>	<u>(80,887)</u>
BALANCE AT END OF YEAR	<u>\$ 1,449,645</u>	<u>\$ 1,105,345</u>

See notes to consolidated financial statements

Liabilities and Stockholders' Equity

Ranchers Exploration and Development Corporation and Subsidiaries

Consolidated Balance Sheets / June 30, 1979 and June 30, 1978

	1979	1978
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES		
Trade accounts payable	\$ 1,072,696	\$ 1,241,252
Federal and state income taxes	838,212	802,312
Other liabilities	1,569,108	1,091,392
Current portion of long-term debt	59,393	995,393
TOTAL CURRENT LIABILITIES	3,539,409	4,130,349
LONG-TERM DEBT—Note F		
5-3/4% convertible subordinated debentures due January 15, 1989	1,639,000	1,876,000
Notes payable	—	2,250,000
Contracts payable for purchase of land and mineral interest costing \$386,180—less unamortized discount based on imputed interest rate of 8.5% (1979—\$4,406; 1978—\$9,935)	238,269	342,133
	1,877,269	4,468,133
Less portion classified as current liability	59,393	995,393
	1,817,876	3,472,740
DEFERRED FEDERAL INCOME TAXES—Note E	6,450,000	5,650,000
STOCKHOLDERS' EQUITY—Notes F and I		
Common Stock—par value \$.50 a share— authorized 4,000,000 shares, issued 1,542,228 shares including shares in treasury	771,114	771,114
Capital in excess of par value	5,530,899	5,530,053
Retained earnings	23,371,743	19,326,582
	29,673,756	25,627,749
Less cost of Common Stock in treasury (1979—133,724 shares; 1978— 110,274 shares)	1,449,645	1,105,345
	28,224,111	24,522,404
	<u><u>\$40,031,396</u></u>	<u><u>\$37,775,493</u></u>

See notes to consolidated financial statements

Assets

Ranchers Exploration and Development Corporation and Subsidiaries

Consolidated Balance Sheets / June 30, 1979 and June 30, 1978

	1979	1978
ASSETS		
CURRENT ASSETS		
Cash	\$ 326,900	\$ 1,881,378
Certificates of deposit and short-term investments	<u>12,246,013</u>	<u>1,382,500</u>
	12,572,913	3,263,878
Trade accounts receivable	3,045,336	2,896,190
Inventories—Note B	476,638	2,185,915
Prepaid expenses and other current assets	<u>930,128</u>	<u>649,429</u>
TOTAL CURRENT ASSETS	17,025,015	8,995,412
PROPERTY, PLANT AND EQUIPMENT— at cost—Note C		
Land	513,338	513,338
Buildings and equipment	25,838,956	25,983,368
Mineral interests, mining claims, leases and permits—Note D	1,664,723	1,841,737
Deferred intangible mining and development costs	<u>5,321,347</u>	<u>5,582,155</u>
	33,338,364	33,920,598
Allowances for depreciation, depletion and amortization	<u>17,971,336</u>	<u>14,162,327</u>
	15,367,028	19,758,271
OTHER ASSETS AND DEFERRED CHARGES		
Investment in joint ventures—Note D	3,360,550	4,859,243
Unamortized debt expense	46,731	59,095
Claim for refund of federal income taxes—Note E	1,068,190	1,068,190
Marketable securities—at cost (market value \$614,000; gross unrealized gain \$57,564)	556,436	556,436
Other assets—Note B	<u>2,607,446</u>	<u>2,478,846</u>
	7,639,353	9,021,810
	<u>\$40,031,396</u>	<u>\$37,775,493</u>

See notes to consolidated financial statements



Left to right, top — Maxie L. Anderson, Leland O. Erdahl, Marvin K. Kaiser; Middle — John E. Motica, Herbert M. Campbell II; Bottom — David K. Hogan, Paul A. Matthews.



Management

Composition of the Company's Board of Directors and senior management staff has changed markedly during the course of the Company's first quarter century. Originally composed of the ranchers who founded the Company, the Board and senior staff today include members experienced in virtually all phases of the mining industry. "We have been most fortunate to have attracted retired chief executives and senior officers of major mining companies, whose judgment and experience have been invaluable to a growing company such as ours," says President Maxie Anderson. "We have also been able to attract and retain a very capable group of senior officers. I believe this results from the challenges of steady growth and the demands of staying at the forefront of mining technology."

Officers

Maxie L. Anderson, President — Mr. Anderson became manager of the Company in 1962 and President in 1963. He holds a BS degree in industrial engineering, University of North Dakota, 1956.

Herbert M. Campbell II, Vice President and Secretary — Mr. Campbell joined the Company in 1967, became Secretary in 1968 and assumed his present position in 1974. He did undergraduate work at the Air Force Academy and received his degree in law from the University of New Mexico, 1967.

Leland O. Erdahl, Vice President, Finance — Mr. Erdahl is the Company's chief financial officer. A Certified Public Accountant, he holds a BS degree in business, College of Santa Fe, 1970.

David K. Hogan, Vice President, Engineering — Mr. Hogan joined the Company in 1968 at the Bluebird Mine and later served as Chief Engineer and Manager of Engineering and Construction before being named to his present position in 1974. He holds a BS degree in mining engineering, University of Arizona, 1962.

Marvin K. Kaiser, Treasurer — Mr. Kaiser, a Certified Public Accountant, joined the Company as Controller in 1969, was named Assistant Secretary and Treasurer in 1972, and became Treasurer in 1974. He holds a BS degree in accounting, Southern Illinois University, 1963.

Paul A. Matthews, Vice President, Operations — Mr. Matthews returned to the Company in 1974 after having previously served with the Company in 1971 as General Manager of the Tungsten Queen Mine. He holds a BS degree in mining engineering, Missouri School of Mines, 1950.

John E. Motica, Senior Vice President, Geology — Mr. Motica joined the Company in 1967 and has headed its exploration and mineral property evaluation program since that time. He holds an Engineer of Mines degree, Colorado School of Mines, 1948.

Directors

Maxie L. Anderson, President, Ranchers Exploration & Development Corporation / *Frank Coolbaugh, President, Peabody Holding Company, Chairman of Peabody Coal Company and former Chief Executive Officer and Chairman of the Board, American Metal Climax Corporation* / *Phil S. Cross, Vice President, Kerr Addison Mines Limited and Chairman and Managing Director of Mogul of Ire-*



Copper Man of the Year

The Company's president, Maxie L. Anderson, was named Copper Man of the Year in 1979 by the Copper Club, a copper industry organization. He was cited for the Company's mining and metallurgical innovations, chiefly at the Bluebird Mine where solvent extraction-electrowinning was first employed on a commercial basis and at the Old Reliable Mine where an entire ore deposit was fractured and leached in place for the first time.

land Limited / *Robert M. Haldeman, President, Minerec Corporation* / *Edward E. Monteith, Jr., Manager, Thomson-Monteith* / *John E. Motica, Senior Vice President, Geology, Ranchers Exploration and Development Corporation* / *Edward McL. Tittmann — Former Chairman of the Board and Chief Executive Officer, American Smelting and Refining Company.*



Washing Rock from Gold Ore in Alaska

Gold/Silver/Geothermal

Precious Metals, Steam Evaluated As Possible New Lines of Business

The Company's steadily improving financial condition stimulated the quest during 1979 for new investments in the minerals and energy industries. Interest centered on gold and silver, precious metals which saw sharp price increases during the year, and on geothermal steam, an attractive alternate energy resource in the western United States.

A test mining program was begun at the Company's Alaskan placers, which were extensively drilled in 1974 and 1975 under terms of a joint venture with Frontier Resources and Marline Oil. The test was begun in June (1979) and concluded in September after processing of about 40,000 yards of gold-bearing gravels and recovery of about 700 ounces of gold. The gravels, processed in a sluicing operation, were taken from a drilled-out area of about 3.5 million yards of material containing average gold values of about \$9 per yard at current gold prices. Results of the operation are now being evaluated to determine mining costs more precisely and to evaluate the reliability of ore grade estimates. Positive results from this study would result in a larger operation at the properties next summer.

The Company completed plans during the year for a test mining project at the Escalante Silver Mine in southwest Utah and began the project in September. The Company will drive a 1,600 foot decline to intersect the ore vein at depth and do approximately 1,000 feet of development work in the vein. The test, which will require approximately eight months to complete, will permit evaluation of rock and water conditions and produce bulk samples for further metallurgical testing of the ore.

The deposit contains more than 1.8 million tons of ore with a silver content of about 10 ounces per ton. The deposit, which has potential for additional ore, also contains limited amounts of lead and zinc. A problem in mining the ore will be the large amounts of water which must be pumped from the deposit as mining proceeds. It is presently estimated that up to 40,000 gallons of water per minute may ultimately need to be pumped from the workings.

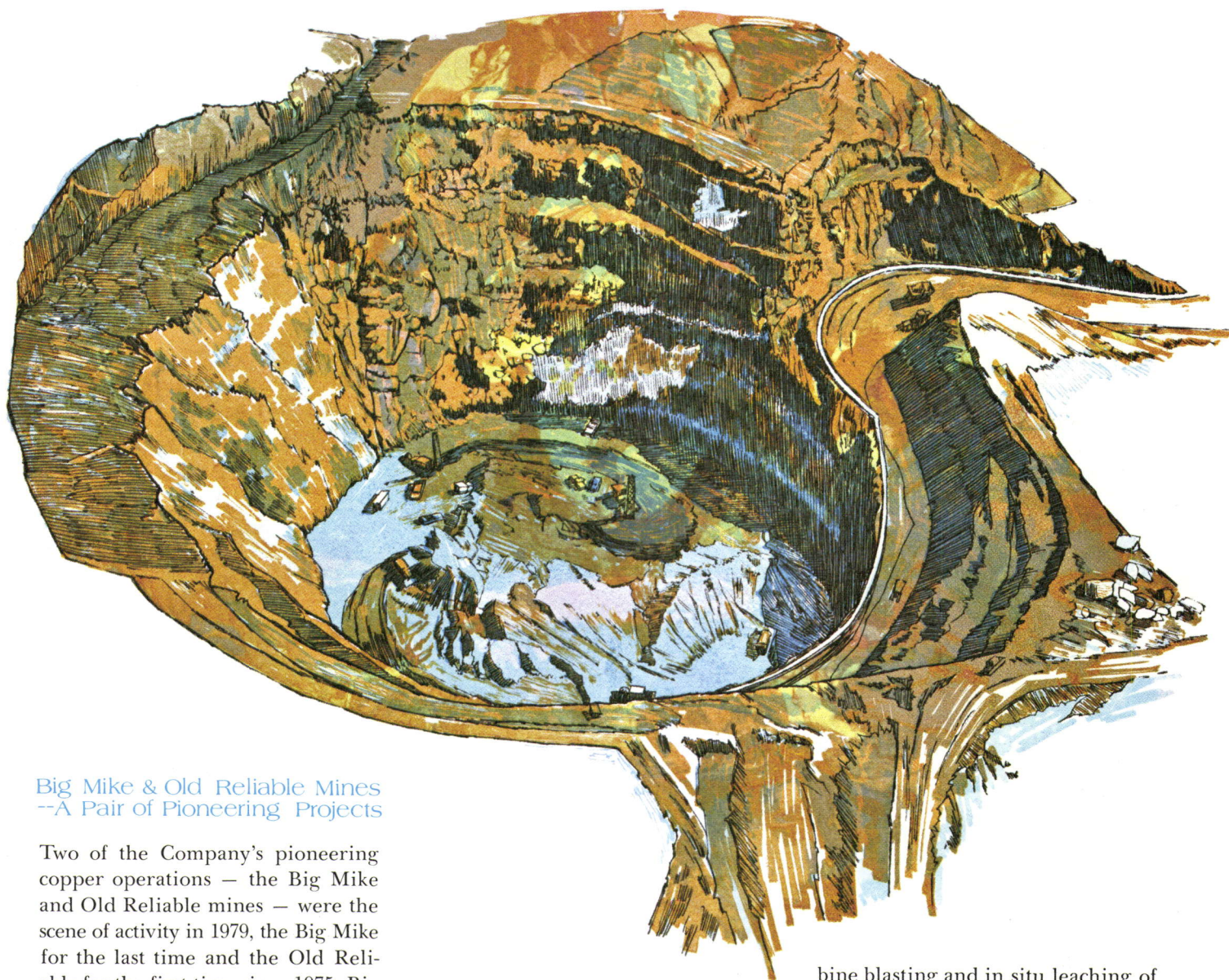
A relatively new mining method, developed in Canada and known as vertical crater retreating, will be tested during the trial mining phase. The technique involves drifting — tunneling — along the top and bottom portions of the vein, drilling large diameter blast holes through the vein from top to bottom and then detonating explosives placed in the bottom of the holes. Blasting gradually

retreats upward as ore falls into the bottom drift and is removed. The technique is safe and economical.

The Company is giving serious consideration to expanding its exploration for precious metals by offering limited partnerships to explore for gold and silver in the United States and Canada. The Company would serve as the operating partner for the program, which could offer tax advantages similar to those available in oil and gas exploration funds.

The Company continues to be interested in investments in geothermal steam. A well was drilled in eastern Utah in partnership with Phillips Petroleum and abandoned before completion when tests showed insufficient temperature gradients. The Company is considering additional exploration, but at present is concentrating its efforts on securing production from a known steam field with a view toward selling electricity to a utility. Government loans to encourage development of geothermal resources make such a project possible without risk of large amounts of capital. The program guarantees up to 75 percent of investment via non-recourse loans to qualifying companies.





Big Mike & Old Reliable Mines --A Pair of Pioneering Projects

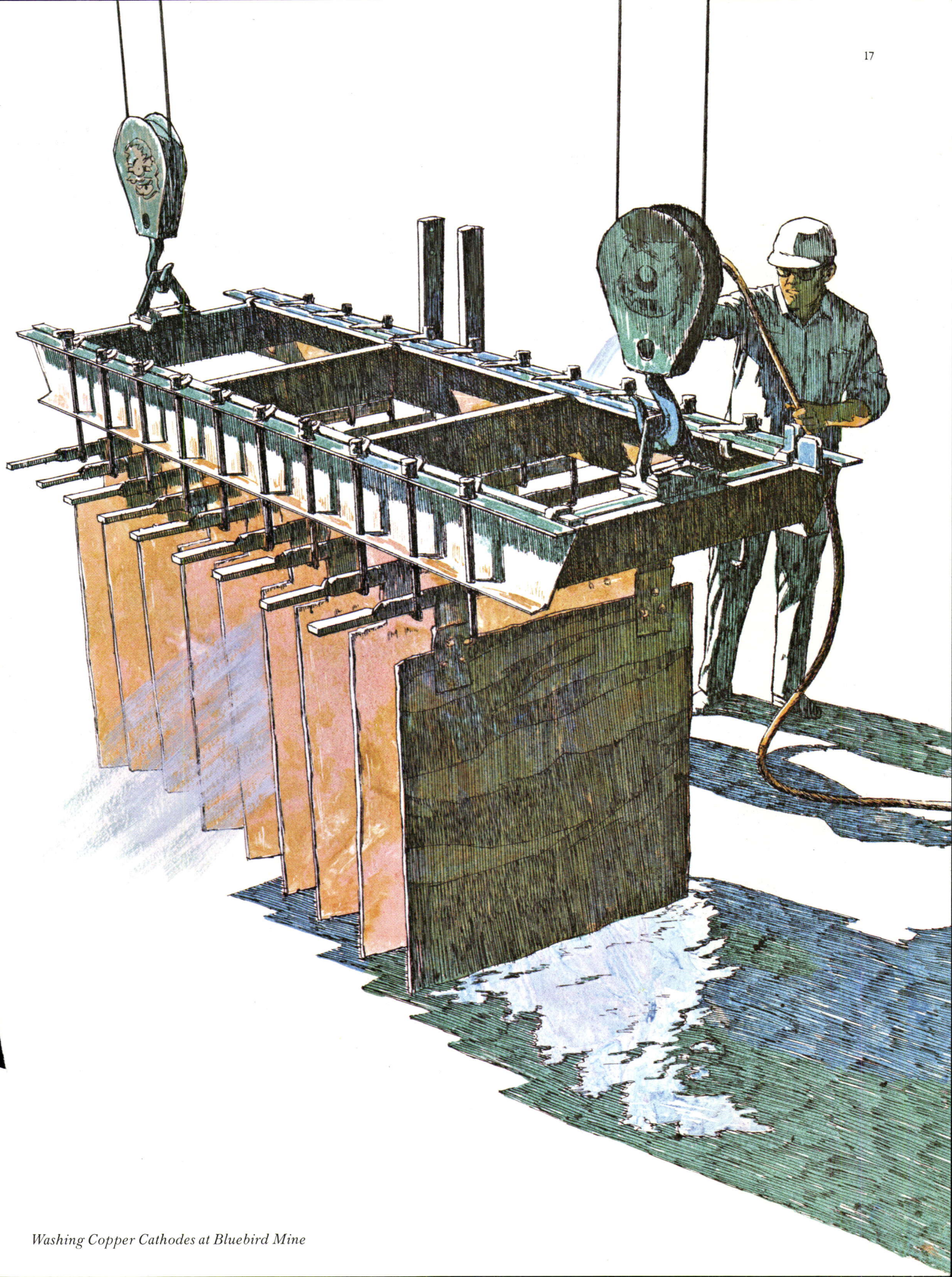
Two of the Company's pioneering copper operations — the Big Mike and Old Reliable mines — were the scene of activity in 1979, the Big Mike for the last time and the Old Reliable for the first time since 1975. Big Mike, operated in two separate phases which tested the Company's ability to move quickly and efficiently in handling both sulfide and oxide copper ores, was closed in January 1979 after yielding 26 million pounds of copper in operations spanning about nine years. Located near Winnemucca, Nevada, the mine was acquired in December 1969 and by the following September the Company had completed shipment to foreign smelters of the deposit's high grade core, some 95,000 tons of massive sulfide ore averaging 10 percent copper, capitalizing on a peak in the copper market that was

not again attained for several years. The second stage of the operation began in 1973 when 400,000 tons of lower-grade oxide ore was blasted from the rim and floor of the open pit. This ore, together with low grade ore left from the first phase of the operation, was leached to produce cement copper. As of June 30, 1979, the Company had recorded a profit of about \$1.8 million on its various operations at the mine, with a nominal amount of copper yet to be sold. The Old Reliable, where production of cement will begin again soon, was the first copper operation to com-

bine blasting and in situ leaching of an entire ore body. Located near Mammoth, Arizona, the mine was opened in 1972 when the Company blasted the four million ton deposit with four million pounds of high explosives and then began leaching the broken ore in place with sulfuric acid. The acid solution was applied across the terraced top of the deposit (see left) and collected at the bottom after dissolving the oxide copper. The copper was then recovered from solution by precipitation with iron. To date, the mine has produced some 11 million pounds of copper.



Terraced Top of Old Reliable Mine



Washing Copper Cathodes at Bluebird Mine

This page is a reference page used to track documents internally for the Division of Oil, Gas and Mining

Mine Permit Number MOZ1004 Mine Name Escalante Silver
Operator Hedra mining co Date June 30, 1979
TO _____ FROM _____

☐ CONFIDENTIAL ☐ BOND CLOSURE ☐ LARGE MAPS ☒ EXPANDABLE
☐ MULTIPUL DOCUMENT TRACKING SHEET ☐ NEW APPROVED NOI
☐ AMENDMENT ☐ OTHER _____

Description YEAR-Record Number

☐ NOI ☒ Incoming ☐ Outgoing ☐ Internal ☐ Superceded

1979 Annual Report

☐ NOI ☐ Incoming ☐ Outgoing ☐ Internal ☐ Superceded

☐ NOI ☐ Incoming ☐ Outgoing ☐ Internal ☐ Superceded

☐ NOI ☐ Incoming ☐ Outgoing ☐ Internal ☐ Superceded

☐ TEXT/ 8 1/2 X 11 MAP PAGES ☐ 11 X 17 MAPS ☐ LARGE MAP

COMMENTS: _____

CC: _____